SEQUENCE LISTING

<110> Lees, Ann M.
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Arjona, Anibal A.

<120> NOVEL LOW DENSITY LIPOPROTEIN BINDING PROTEINS AND THEIR USE IN DIAGNOSING AND TREATING ATHEROSCLEROSIS

<130> 10797-004001

<140> US 09/616,289
<141> 2000-07-14

<150> US 09/517,849
<151> 2000-03-02

<150> US 08/979,608
<151> 1997-11-26

<150> US 60/031,930
<151> 1996-11-27

<150> US 60/048,547
<151> 1997-06-03

<160> 53

<170> FastSEQ for Windows Version 4.0

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			20					25					30		
Gly	Gln	Ala	Gly	Pro	Asp	Glu	Gly	Glu	Val	Asp	Ser	Cys	Leu	Arg	Gln
		35					40					45			
Gly	Asn	Met	Thr	Ala	Ala	Leu	Gln	Ala	Ala	Leu	Lys	Asn	Pro	Pro	Ile
	50					55					60				
Asn	Thr	Arg	Ser	Gln	Ala	Val	Lys	Asp	Arg	Ala	Gly	Ser	Ile	Val	Leu
65					70					75					80
Lys	Val	Leu	Ile	Ser	Phe	Lys	Ala	Gly	Asp	Ile	Glu	Lys	Ala	Val	Gln
				85					90					95	
Ser	Leu	Asp	Arg	Asn	Gly	Val	Asp	Leu	Leu	Met	Lys	Tyr	Ile	Tyr	Lys
			100					105					110		
Gly	Phe	Glu	Ser	Pro	Ser	Asp	Asn	Ser	Ser	Ala	Val	Leu	Leu	Gln	Trp
		115					120					125			
His	Glu	Lys	Ala	Leu	Ala	Ala	Gly	Gly	Val	Gly	Ser	Ile	Val	Arg	Val
	130					135					140				

Leu Thr Ala Arg Lys Thr Val
145 150

<210> 2
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<213> Oryctolagus cuniculus

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Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
35 40 45
Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
50 55 60
Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
65 70 75 80
Arg Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala
85 90 95
Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu
100 105 110
Asp Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val
115 120 125
Pro Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly
130 135 140
Gly Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser
145 150 155 160
Leu Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala
165 170 175
Gly Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu
180 185 190
Gly Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val
195 200 205
Pro Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro
210 215 220
Phe Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu
225 230 235 240
Trp Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro
245 250 255
Glu Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu
260 265 270
Leu Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu
275 280 285
Gly Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln
290 295 300
Gly His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
305 310 315

<210> 3
<211> 232

<212> PRT
<213> Oryctolagus cuniculus

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Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val
 1   5   10   15
Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
            20   25   30
Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
        35   40   45
Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
    50   55   60
Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
65   70   75   80
Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
                85   90   95
Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
            100   105   110
Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
        115   120   125
Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
    130   135   140
Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
145   150   155   160
Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
                165   170   175
Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
            180   185   190
Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
        195   200   205
Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
    210   215   220
Asp Asp Pro Glu Gly Phe Leu Gly
225   230

<210> 4
<211> 252
<212> PRT
<213> Oryctolagus cuniculus

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Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg
 1   5   10   15
Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
            20   25   30
Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp
        35   40   45
Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro
    50   55   60
Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly
65   70   75   80
Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu
                85   90   95
Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly
            100   105   110
Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly
        115   120   125

```
Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro
    130                 135                 140
Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe
145                 150                 155                 160
Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp
                165                 170                 175
Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu
            180                 185                 190
Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu
        195                 200                 205
Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly
    210                 215                 220
Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly
225                 230                 235                 240
His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
                245                 250
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<210> 5
<211> 557
<212> PRT
<213> Oryctolagus cuniculus

<400> 5

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Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
 1               5                  10                  15
Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
            20                  25                  30
Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
        35                  40                  45
Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
    50                  55                  60
Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
65                  70                  75                  80
Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
                85                  90                  95
Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
            100                 105                 110
Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
        115                 120                 125
Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu
    130                 135                 140
Ile Arg Thr Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
145                 150                 155                 160
Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
                165                 170                 175
Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu
            180                 185                 190
Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
        195                 200                 205
Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
    210                 215                 220
Asp His Leu Arg Gly Glu His Ser Lys Ala Ile Leu Ala Arg Ser Lys
225                 230                 235                 240
Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys
                245                 250                 255
Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys Glu
            260                 265                 270
```

```
Val Thr Ser His Phe Gln Met Thr Leu Asn Asp Ile Gln Leu Gln Met
        275                 280                 285
Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
    290                 295                 300
Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
305                 310                 315                 320
Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
                325                 330                 335
Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
            340                 345                 350
Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
        355                 360                 365
Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
    370                 375                 380
Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
385                 390                 395                 400
Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
                405                 410                 415
Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
            420                 425                 430
Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
        435                 440                 445
Glu Lys Thr Leu Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
    450                 455                 460
Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
465                 470                 475                 480
Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Pro Val
                485                 490                 495
Ser Asp Ser Gly Pro Glu Arg Arg Pro Glu Pro Ala Thr Thr Ser Lys
            500                 505                 510
Glu Gln Gly Val Glu Gly Pro Gly Ala Gln Val Pro Asn Ser Pro Arg
        515                 520                 525
Ala Thr Asp Ala Ser Cys Cys Ala Gly Ala Pro Ser Thr Glu Ala Ser
    530                 535                 540
Gly Gln Thr Gly Pro Gln Glu Pro Thr Thr Ala Thr Ala
545                 550                 555
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<210> 6
<211> 151
<212> PRT
<213> Homo sapiens

<400> 6

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Met Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val
 1               5                  10                  15
Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp
            20                  25                  30
Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln
        35                  40                  45
Gly Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile
    50                  55                  60
Asn Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu
65                  70                  75                  80
Lys Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala Val Gln
                85                  90                  95
Ser Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys
            100                 105                 110
```

```
Gly Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp
        115                 120                 125
His Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val
    130                 135                 140
Leu Thr Ala Arg Lys Thr Val
145                 150
```

<210> 7
<211> 217
<212> PRT
<213> Homo sapiens

<400> 7

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Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Asp Asp Asp Glu Asp
 1               5                  10                  15
Glu Asp Glu Glu Asp Asp Val Ser Glu Gly Ser Glu Val Pro Glu Ser
            20                  25                  30
Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg Gly
        35                  40                  45
Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly Pro
    50                  55                  60
His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly Thr
65                  70                  75                  80
Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr Ala
                85                  90                  95
Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro
            100                 105                 110
Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro
        115                 120                 125
Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val Met
    130                 135                 140
Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr
145                 150                 155                 160
Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln
                165                 170                 175
Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu
            180                 185                 190
Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu
        195                 200                 205
Asp Asp Asp Pro Asp Gly Phe Leu Gly
    210                 215
```

<210> 8
<211> 530
<212> PRT
<213> Homo sapiens

<400> 8

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Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Pro Glu Gly Ala Gln Glu
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Arg Pro Ser Gln Ala Ala Pro Ala Val Glu Ala Glu Gly Pro Gly Ser
            20                  25                  30
Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
        35                  40                  45
Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
    50                  55                  60
Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly
```

65 70 75 80
Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys
85 90 95
Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val
100 105 110
Val Tyr Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu Glu
115 120 125
Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
130 135 140
Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
145 150 155 160
Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu
165 170 175
Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
180 185 190
Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
195 200 205
Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser Lys
210 215 220
Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys
225 230 235 240
Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys Glu
245 250 255
Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile Gln Leu Gln Met
260 265 270
Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
275 280 285
Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
290 295 300
Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
305 310 315 320
Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
325 330 335
Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
340 345 350
Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
355 360 365
Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
370 375 380
Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
385 390 395 400
Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
405 410 415
Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
420 425 430
Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
435 440 445
Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
450 455 460
Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser Leu
465 470 475 480
Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln Ala
485 490 495
Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr Pro Gly Ala Pro
500 505 510
Ser Thr Glu Ala Ser Gly Gln Thr Gly Pro Gln Glu Pro Thr Ser Ala
515 520 525

Arg Ala
530

<210> 9
<211> 20
<212> PRT
<213> Homo sapiens

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Gly Gly Asp Gly
20

<210> 10
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<213> Oryctolagus cuniculus

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<222> (58)...(510)

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Met
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Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val Asp
5 10 15

gag tac gac gag aac aag ttc gtg gac gag gaa gac ggc ggc gac ggc 156
Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp Gly
20 25 30

cag gcg ggg ccg gac gag ggc gag gtg gac tcg tgc ctg cgg caa ggg 204
Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln Gly
35 40 45

aac atg aca gcc gcc ctg cag gcg gcg ctg aag aac cct ccc atc aac 252
Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile Asn
50 55 60 65

acc agg agc cag gcg gtg aag gac cgg gca ggc agc atc gtg ctg aag 300
Thr Arg Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu Lys
70 75 80

gtg ctc atc tcc ttc aag gcc ggc gac ata gaa aag gcc gtg cag tcc 348
Val Leu Ile Ser Phe Lys Ala Gly Asp Ile Glu Lys Ala Val Gln Ser
85 90 95

ctg gac agg aac ggc gtg gac ctg ctc atg aag tac atc tac aag ggc 396
Leu Asp Arg Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys Gly
100 105 110

ttc gag agc ccc tcc gac aac agc agc gcc gtg ctc ctg cag tgg cac 444

```
Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Val Leu Leu Gln Trp His
    115                 120                 125

gag aag gcg ctg gct gca gga gga gtg ggc tcc atc gtc cgt gtc ctg      492
Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val Leu
130                 135                 140                 145

act gca agg aaa acc gtg tagcctggca ggaacgggtg cctgccgggg            540
Thr Ala Arg Lys Thr Val
                150

agcgggagct gccggtacaa agaccaaaac gcccagatgc cgccgctgcc ctgtgggcgg    600
cgtctgttcc cagcttcgct ttttcccttt cccgtgtctg tcaggattac ataaggtttc    660
ccttcgtgag aatcggagtg gcgcagaggg tcctgttcat acgcgccgtg cgtccggctg    720
tgtaagaccc ctgccttcag tgtccttgag caacggtagc gtgtcgccgg ctgggtttgg    780
ttttgtcgtg gagggatctg gtcagaattt gaggccagtt tcctaactca ttgctggtca    840
ggaaatgatc ttcatttaaa aaaaaaaaaa agactggcag ctattatgca aaactggacc    900
ctcttccctt atttaagcag agtgagtttc tggaaccagt ggtgcccccc cccccgcccc    960
ggccgccgtc ctgctcaagg gaagcctccc tgcagagcag cagagcccct gggcaggagc   1020
gccgcgtccc gctcccagga gacagcatgc gcggtcacgc ggcacttcct gtgcctccca   1080
gccccagtgc cccggagttc ttcagggcga cagggacctc agaagactgg atccgatcca   1140
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gagcacactg gttctcagaa cacggccggc gcttgacggt tgtcacagct ccagaacaaa   1260
tcctgggaga caggcgagcg cgagtcgccg ggcaggaatt ccacacactc gtgctgtttt   1320
tgatacctgc tttttgtttt gttttgtaaa aatgatgcac ttgagaaaat aaaacgtcag   1380
tgttgacaaa aaaaaaaaaa aaaa                                          1404

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<212> DNA
<213> Oryctolagus cuniculus

<220>
<221> CDS
<222> (1)...(951)

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Asp Cys Arg Ser Ser Ser Asn Asn Arg  *  Pro Lys Gly Gly Ala Ala
 1               5                      10                  15

cgg gcc ggc ggc ccg gcg cgg ccc gtg agc ctg cgg gaa gtc gtg cgc       96
Arg Ala Gly Gly Pro Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
                20                  25                  30

tac ctc ggg ggt agc agc ggc gct ggc ggc cgc ctg acc cgc ggc cgc      144
Tyr Leu Gly Gly Ser Ser Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
            35                  40                  45

gtg cag ggt ctg ctg gaa gag gag gcg gcg gcg cgg ggc cgc ctg gag      192
Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
        50                  55                  60

cgc acc cgt ctc gga gcg ctt gcg ctg ccc cgc ggg gac agg ccc gga      240
Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
    65                  70                  75
```

```
cgg gcg cca ccg gcc gcc agc gcc cgc gcg gcg cgg aac aag aga gct      288
Arg Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala
 80                  85                  90                  95

ggc gag gag cga gtg ctt gaa aag gag gag gag gag gag gag gag gaa      336
Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu
                100                 105                 110

gac gac gag gac gac gac gac gac gtc gtg tcc gag ggc tcg gag gtg      384
Asp Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val
            115                 120                 125

ccc gag agc gat cgt ccc gcg ggt gcg cag cat cac cag ctg aat ggc      432
Pro Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly
        130                 135                 140

ggc gag cgc ggc ccg cag acc gcc aag gag cgg gcc aag gag tgg tcg      480
Gly Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser
    145                 150                 155

ctg tgt ggc ccc cac cct ggc cag gag gaa ggg cgg ggg ccg gcc gcg      528
Leu Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala
160                 165                 170                 175

ggc agt ggc acc cgc cag gtg ttc tcc atg gcg gcc ttg agt aag gag      576
Gly Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu
                180                 185                 190

ggg gga tca gcc tct tcg acc acc ggg cct gac tcc ccg tcc ccg gtg      624
Gly Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val
            195                 200                 205

cct ttg ccc ccc ggg aag cca gcc ctc cca gga gcc gat ggg acc ccc      672
Pro Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro
        210                 215                 220

ttt ggc tgc cct gcc ggg cgc aaa gag aag ccg gca gac ccc gtg gag      720
Phe Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu
    225                 230                 235

tgg aca gtc atg gac gtc gtg gag tac ttc acc gag gcg ggc ttc cct      768
Trp Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro
240                 245                 250                 255

gag caa gcc acg gct ttc cag gag cag gag atc gac ggc aag tcc ctg      816
Glu Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu
                260                 265                 270

ctg ctc atg cag cgc acc gat gtc ctc acc ggc ctg tcc atc cgc ctg      864
Leu Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu
            275                 280                 285

ggg cca gcg ttg aaa atc tat gag cac cat atc aag gtg ctg cag cag      912
Gly Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln
        290                 295                 300

ggt cac ttc gag gac gat gac ccg gaa ggc ttc ctg gga tgagcacaga      961
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```
Gly His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
    305                 310                 315

gccgccgcgc cccttgtccc caccccccacc ccgcctggac ccattcctgc ctccatgtca   1021
cccaaggtgt cccagaggcc aggagctgga ctgggcaggc gaggggtgcg gacctaccct   1081
gattctggta gggggcgggg ccttgctgtg ctcattgcta ccccccccacc ccgtgtgtgt   1141
ctctgcacct gcccccagca caccccctccc ggagcctgga tgtcgcctgg gactctggcc   1201
tgctcatttt gcccccagat cagccccctc cctccctcct gtcccaggac atttttttaaa   1261
agaaaaaaag gaaaaaaaaa aattggggag ggggctggga aggtgcccca agatcctcct   1321
cggcccaacc aggtgtttat tcctatatat atatatatat gttttgttct gcctgttttt   1381
cgtttttttgg tgcgtggcct ttcttccctc ccaccaccac tcatggcccc agccctgctc   1441
gccctgtcgg cgggagcagc tgggaatggg aggagggtgg gaccttgggt ctgtctccca   1501
ccctctctcc cgttggttct gttgtcgctc cagctggctg tattgctttt taatattgca   1561
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<212> DNA
<213> Oryctolagus cuniculus

<220>
<221> CDS
<222> (1)...(696)

<400> 12
gcc agc gcc cgc gcg gcg cgg aac aag aga gct ggc gag gag cga gtg       48
Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val
 1               5                  10                  15

ctt gaa aag gag gag gag gag gag gag gag gaa gac gac gag gac gac       96
Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp
            20                  25                  30

gac gac gac gtc gtg tcc gag ggc tcg gag gtg ccc gag agc gat cgt      144
Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg
        35                  40                  45

ccc gcg ggt gcg cag cat cac cag ctg aat ggc ggc gag cgc ggc ccg      192
Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro
    50                  55                  60

cag acc gcc aag gag cgg gcc aag gag tgg tcg ctg tgt ggc ccc cac      240
Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His
65                  70                  75                  80

cct ggc cag gag gaa ggg cgg ggg ccg gcc gcg ggc agt ggc acc cgc      288
Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg
                85                  90                  95

cag gtg ttc tcc atg gcg gcc ttg agt aag gag ggg gga tca gcc tct      336
Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser
            100                 105                 110

tcg acc acc ggg cct gac tcc ccg tcc ccg gtg cct ttg ccc ccc ggg      384
Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly
        115                 120                 125
```

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aag cca gcc ctc cca gga gcc gat ggg acc ccc ttt ggc tgc cct gcc      432
Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala
    130                 135                 140

ggg cgc aaa gag aag ccg gca gac ccc gtg gag tgg aca gtc atg gac      480
Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp
145                 150                 155                 160

gtc gtg gag tac ttc acc gag gcg ggc ttc cct gag caa gcc acg gct      528
Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala
                165                 170                 175

ttc cag gag cag gag atc gac ggc aag tcc ctg ctg ctc atg cag cgc      576
Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg
            180                 185                 190

acc gat gtc ctc acc ggc ctg tcc atc cgc ctg ggg cca gcg ttg aaa      624
Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys
        195                 200                 205

atc tat gag cac cat atc aag gtg ctg cag cag ggt cac ttc gag gac      672
Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp
    210                 215                 220

gat gac ccg gaa ggc ttc ctg gga tgagcacaga gccgccgcgc cccttgtccc      726
Asp Asp Pro Glu Gly Phe Leu Gly
225                 230

caccccccacc ccgcctggac ccattcctgc ctccatgtca cccaaggtgt cccagaggcc    786
aggagctgga ctgggcaggc gaggggtgcg gacctaccct gattctggta gggggcgggg    846
ccttgctgtg ctcattgcta ccccccccacc ccgtgtgtgt ctctgcacct gcccccagca   906
caccctctcc ggagcctgga tgtcgcctgg gactctggcc tgctcatttt gcccccagat    966
cagccccctc cctccctcct gtcccaggac atttttttaaa agaaaaaaag gaaaaaaaaa   1026
aattggggag ggggctggga aggtgcccca agatcctcct cggcccaacc aggtgtttat   1086
tcctatatat atatatatat gttttgttct gcctgttttt cgtttttttgg tgcgtggcct   1146
ttcttccctc ccaccaccac tcatggcccc agccctgctc gccctgtcgg cgggagcagc   1206
tgggaatggg aggagggtgg gaccttgggt ctgtctccca ccctctctcc cgttggttct   1266
gttgtcgctc cagctggctg tattgctttt taatattgca ccgaagggtt gttttttttt   1326
ttttaaataa aattttaaaa aaaggaaaaa aaaaaa                             1362
```

<210> 13
<211> 1422
<212> DNA
<213> Oryctolagus cuniculus

<220>
<221> CDS
<222> (1)...(756)

<400> 13

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acc cgt ctc gga gcg ctt gcg ctg ccc cgc ggg gac agg ccc gga cgg       48
Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg
 1               5                  10                  15

gcg cca ccg gcc gcc agc gcc cgc gcg gcg cgg aac aag aga gct ggc       96
Ala Pro Pro Ala Ala Ser Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly
            20                  25                  30
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gag gag cga gtg ctt gaa aag gag gag gag gag gag gag gag gaa gac      144
Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp
         35                  40                  45

gac gag gac gac gac gac gac gtc gtg tcc gag ggc tcg gag gtg ccc      192
Asp Glu Asp Asp Asp Asp Asp Val Val Ser Glu Gly Ser Glu Val Pro
     50                  55                  60

gag agc gat cgt ccc gcg ggt gcg cag cat cac cag ctg aat ggc ggc      240
Glu Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Gly
 65                  70                  75                  80

gag cgc ggc ccg cag acc gcc aag gag cgg gcc aag gag tgg tcg ctg      288
Glu Arg Gly Pro Gln Thr Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu
                 85                  90                  95

tgt ggc ccc cac cct ggc cag gag gaa ggg cgg ggg ccg gcc gcg ggc      336
Cys Gly Pro His Pro Gly Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly
            100                 105                 110

agt ggc acc cgc cag gtg ttc tcc atg gcg gcc ttg agt aag gag ggg      384
Ser Gly Thr Arg Gln Val Phe Ser Met Ala Ala Leu Ser Lys Glu Gly
        115                 120                 125

gga tca gcc tct tcg acc acc ggg cct gac tcc ccg tcc ccg gtg cct      432
Gly Ser Ala Ser Ser Thr Thr Gly Pro Asp Ser Pro Ser Pro Val Pro
    130                 135                 140

ttg ccc ccc ggg aag cca gcc ctc cca gga gcc gat ggg acc ccc ttt      480
Leu Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe
145                 150                 155                 160

ggc tgc cct gcc ggg cgc aaa gag aag ccg gca gac ccc gtg gag tgg      528
Gly Cys Pro Ala Gly Arg Lys Glu Lys Pro Ala Asp Pro Val Glu Trp
                165                 170                 175

aca gtc atg gac gtc gtg gag tac ttc acc gag gcg ggc ttc cct gag      576
Thr Val Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu
            180                 185                 190

caa gcc acg gct ttc cag gag cag gag atc gac ggc aag tcc ctg ctg      624
Gln Ala Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu
        195                 200                 205

ctc atg cag cgc acc gat gtc ctc acc ggc ctg tcc atc cgc ctg ggg      672
Leu Met Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly
    210                 215                 220

cca gcg ttg aaa atc tat gag cac cat atc aag gtg ctg cag cag ggt      720
Pro Ala Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly
225                 230                 235                 240

cac ttc gag gac gat gac ccg gaa ggc ttc ctg gga tgagcacaga          766
His Phe Glu Asp Asp Asp Pro Glu Gly Phe Leu Gly
                245                 250
```

```
gccgccgcgc cccttgtccc cacccccacc ccgcctggac ccattcctgc ctccatgtca    826
cccaaggtgt cccagaggcc aggagctgga ctgggcaggc gaggggtgcg gacctaccct    886
gattctggta gggggcgggg ccttgctgtg ctcattgcta ccccccccacc ccgtgtgtgt    946
ctctgcacct gccccccagca cacccctccc ggagcctgga tgtcgcctgg gactctggcc   1006
tgctcatttt gccccccagat cagccccctc cctccctcct gtcccaggac atttttttaaa  1066
agaaaaaaag gaaaaaaaaa aattggggag ggggctggga aggtgcccca agatcctcct   1126
cggcccaacc aggtgtttat tcctatatat atatatatat gttttgttct gcctgttttt   1186
cgtttttttgg tgcgtggcct ttcttccctc ccaccaccac tcatggcccc agccctgctc   1246
gccctgtcgg cgggagcagc tgggaatggg aggagggtgg gaccttgggt ctgtctccca   1306
ccctctctcc cgttggttct gttgtcgctc cagctggctg tattgctttt taatattgca   1366
ccgaagggtt gttttttttt ttttaaataa aattttaaaa aaaggaaaaa aaaaaa       1422

<210> 14
<211> 4722
<212> DNA
<213> Oryctolagus cuniculus

<220>
<221> CDS
<222> (61)...(1731)

<400> 14
gtggaaaata gcaactgtgt ttctcaagga tccaatccca acctaaggtg gcagcgcaca     60
atg aag aat caa gac aaa aag aac ggg gct gcc aaa cag ccc aac ccc      108
Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Pro Asn Pro
 1               5                  10                  15

aaa agc agc ccg gga cag ccg gaa gca gga gcg gag gga gcc cag ggg      156
Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Ala Glu Gly Ala Gln Gly
            20                  25                  30

cgg ccc ggc cgg ccg gcc ccc gcc cga gaa gcc gaa ggt gcc agc agc      204
Arg Pro Gly Arg Pro Ala Pro Ala Arg Glu Ala Glu Gly Ala Ser Ser
        35                  40                  45

cag gct ccc ggg agg ccg gag ggg gct caa gcc aaa act gct cag cct      252
Gln Ala Pro Gly Arg Pro Glu Gly Ala Gln Ala Lys Thr Ala Gln Pro
    50                  55                  60

ggg gcg ctc tgt gat gtc tct gag gag ctg agc cgc cag ttg gaa gac      300
Gly Ala Leu Cys Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu Asp
65                  70                  75                  80

ata ctc agt aca tac tgt gtg gac aac aac cag ggg gcc ccg ggt gag      348
Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Ala Pro Gly Glu
                85                  90                  95

gat ggg gtc cag ggt gag ccc cct gaa cct gaa gat gca gag aag tct      396
Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu Lys Ser
            100                 105                 110

cgc gcc tat gtg gca agg aat ggg gag ccg gag ccg ggc acc cca gta      444
Arg Ala Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Gly Thr Pro Val
        115                 120                 125

gtc aat ggc gag aag gag acc tcc aag gca gag ccg ggc acg gaa gag      492
Val Asn Gly Glu Lys Glu Thr Ser Lys Ala Glu Pro Gly Thr Glu Glu
```

```
    130                 135                 140

atc cgg acg agc gat gag gtc gga gac cga gac cac cgg agg cca cag      540
Ile Arg Thr Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
145                 150                 155                 160

gaa aag aag aag gcc aag ggt ctg gga aag gag atc acg ctg ctg atg      588
Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
                165                 170                 175

cag aca ctg aac acg ctg agc acc cca gag gag aag ctg gcg gct ctg      636
Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu
            180                 185                 190

tgc aag aag tat gcg gaa ctg ctc gag gag cac cgg aac tcg cag aag      684
Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
        195                 200                 205

cag atg aag ctg ctg cag aag aag cag agc cag ctg gtg cag gag aag      732
Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
    210                 215                 220

gac cac ctg cgt ggc gag cac agc aag gcc atc ctg gcc cgc agc aag      780
Asp His Leu Arg Gly Glu His Ser Lys Ala Ile Leu Ala Arg Ser Lys
225                 230                 235                 240

ctc gag agc ctg tgc cgg gag ctg cag cgg cac aac cgc tcg ctc aag      828
Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys
                245                 250                 255

gaa gaa ggt gtg cag cga gcc cga gag gag gag gag aag cgc aag gag      876
Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys Glu
            260                 265                 270

gtg acg tca cac ttc cag atg acg ctc aac gac att cag ctg cag atg      924
Val Thr Ser His Phe Gln Met Thr Leu Asn Asp Ile Gln Leu Gln Met
        275                 280                 285

gag cag cac aac gag cgc aac tcc aag ctg cgc cag gag aac atg gag      972
Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
    290                 295                 300

ctg gcc gag cgg ctc aag aag ctg att gag cag tac gag ctg cga gaa     1020
Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
305                 310                 315                 320

gag cac atc gac aaa gtc ttc aaa cac aag gat ctg cag cag cag ctg     1068
Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
                325                 330                 335

gtg gac gcc aag ctc cag cag gcc cag gag atg ctg aag gag gca gag     1116
Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
            340                 345                 350

gag cgg cac cag cgg gag aag gac ttt ctc ctg aag gag gcc gtg gag     1164
Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
        355                 360                 365
```

```
tcc cag agg atg tgc gag ctg atg aag caa cag gag acc cac ctg aag     1212
Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
    370                 375                 380

cag cag ctt gcc cta tac aca gag aag ttt gag gag ttc cag aac act     1260
Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
385                 390                 395                 400

ctt tcc aaa agc agc gag gtg ttc acc aca ttc aaa cag gaa atg gaa     1308
Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
                405                 410                 415

aag atg aca aag aag atc aag aag ctg gag aaa gag acc acc atg tac     1356
Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
            420                 425                 430

cgt tcc cgg tgg gag agc agc aac aag gcc ctg ctt gag atg gct gag     1404
Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
        435                 440                 445

gag aaa aca ctc cgg gac aaa gag ctg gaa ggc ctg cag gtg aaa atc     1452
Glu Lys Thr Leu Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
    450                 455                 460

cag cgg ctg gag aag ctg tgc cgg gca ctg cag aca gag cgc aat gac     1500
Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
465                 470                 475                 480

ctg aac aag agg gtg cag gac ctg agt gcc ggt ggc cag ggc ccc gtc     1548
Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Pro Val
                485                 490                 495

tcc gac agc ggt cct gag cgg agg cca gag ccc gcc acc acc tcc aag     1596
Ser Asp Ser Gly Pro Glu Arg Arg Pro Glu Pro Ala Thr Thr Ser Lys
            500                 505                 510

gag cag ggt gtc gag ggc ccc ggg gct caa gta ccc aac tct cca agg     1644
Glu Gln Gly Val Glu Gly Pro Gly Ala Gln Val Pro Asn Ser Pro Arg
        515                 520                 525

gcc aca gac gct tcc tgc tgc gca ggt gca ccc agc aca gag gca tca     1692
Ala Thr Asp Ala Ser Cys Cys Ala Gly Ala Pro Ser Thr Glu Ala Ser
    530                 535                 540

ggc cag aca ggg ccc cag gag ccc acc act gcc act gcc tagagagctt     1741
Gly Gln Thr Gly Pro Gln Glu Pro Thr Thr Ala Thr Ala
545                 550                 555

ggtgctgggg tgtgccagga agggagcagg cagcccagcc aggcctggcc cagcccaggc   1801
tcccatgcta agcagtccgg tgctgaggcc aggatgttct gacctggctg gcacctgacc   1861
ctctgcagtc ttggattttg tgggtcagtt ttacatgcat atggcacaca tgcaaggcct   1921
cacacatttg tgtctctaag tgtactgtgg gcttgcatcg ggggtgacga tggacagatg   1981
aagccagcgg ctcccttgtg agctgaagtc ttacggagga gacggcgtct gcactgccat   2041
cgcagtgacc tgcaggacga gttccttgag ctttccctgc ctgctttgag gctgagaccc   2101
ctcccggccc ttcagagctc ctgacaggtg atacacaccc agccttgacc gcacttctct   2161
tgggtagctg ggctctccta gcctccccca gaggcgccat tgcttctctt gacttggaga   2221
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ggggatgccc aggcgtggcc ttggcaggca ctgggagcta gtgattgggc tgctctcctg 2281
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agttgtgctg acagcttttt ttggtttttt ggtttttgtt tttgtttttg tttttgtttt 4621
tgtctacttt tggtattcac aacagccagg gacttgattt tgatgtattt taagccacat 4681
taaataaaga gtctgttgcc ttaaaaaaaa aaaaaaaaaa a 4722

<210> 15
<211> 1925
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (118)...(570)

<400> 15
gacgcctcag agcggaacag ggaagtgaat caggcgccgg gtagtgggtt gctgggctgg 60
gcttgctgag gtagaggcag cgccaagaag aggcctttgc cgctggtcgg gattggg atg 120
Met
1

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tcg aag aac aca gtg tcg tcg gcc cgc ttc cgg aag gtg gac gtg gat      168
Ser Lys Asn Thr Val Ser Ser Ala Arg Phe Arg Lys Val Asp Val Asp
             5                  10                  15

gaa tat gac gag aac aag ttc gtg gac gaa gaa gat ggg ggc gac ggc      216
Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp Gly Gly Asp Gly
         20                  25                  30

cag gcc ggg ccc gac gag ggc gag gtg gac tcc tgc ctg cgg caa gga      264
Gln Ala Gly Pro Asp Glu Gly Glu Val Asp Ser Cys Leu Arg Gln Gly
     35                  40                  45

aac atg aca gct gcc cta cag gca gct ctg aag aac ccc cct atc aac      312
Asn Met Thr Ala Ala Leu Gln Ala Ala Leu Lys Asn Pro Pro Ile Asn
 50                  55                  60                  65

acc aag agt cag gca gtg aag gac cgg gca ggc agc att gtc ttg aag      360
Thr Lys Ser Gln Ala Val Lys Asp Arg Ala Gly Ser Ile Val Leu Lys
                 70                  75                  80

gtg ctc atc tct ttt aaa gct aat gat ata gaa aag gca gtt caa tct      408
Val Leu Ile Ser Phe Lys Ala Asn Asp Ile Glu Lys Ala Val Gln Ser
             85                  90                  95

ctg gac aag aat ggt gtg gat ctc cta atg aag tat att tat aaa gga      456
Leu Asp Lys Asn Gly Val Asp Leu Leu Met Lys Tyr Ile Tyr Lys Gly
        100                 105                 110

ttt gag agc ccg tct gac aat agc agt gct atg tta ctg caa tgg cat      504
Phe Glu Ser Pro Ser Asp Asn Ser Ser Ala Met Leu Leu Gln Trp His
    115                 120                 125

gaa aag gca ctt gct gct gga gga gta ggg tcc att gtt cgt gtc ttg      552
Glu Lys Ala Leu Ala Ala Gly Gly Val Gly Ser Ile Val Arg Val Leu
130                 135                 140                 145

act gca aga aaa act gtg tagtctggca ggaagtggat tatctgcctc             600
Thr Ala Arg Lys Thr Val
                150

gggagtggga attgctggta caaagaccaa aacaaccaaa tgccaccgct gccctgtggg    660
tagcatctgt ttctctcagc tttgccttct tgctttttca tatctgtaaa gaaaaaaatt    720
acatatcagt tgtcccttta atgaaaattg ggataatata gaagaaattg tgttaaaata    780
gaagtgtttc atcctttcaa aaccatttca gtgatgttta taccaatctg tatatagtat    840
aatttacatt caagttttaa ttgtgcaact tttaaccctg ttggctggtt tttggttctg    900
tttggttttg tattattttt aactaatact gaaaaatttg gtcagaattt gaggccagtt    960
tcctagctca ttgctagtca ggaaatgata tttataaaaa atatgagaga ctggcagcta   1020
ttaacattgc aaaactggac catatttccc ttatttaata agcaaaatat gtttttggaa   1080
taagtggtgg gtgaatacca ctgctaagtt atagctttgt ttttgcttgc ctcctcatta   1140
tctgtactgt gggtttaagt atgctacttt ctctcagcat ccaataatca tggcccctca   1200
atttatttgt ggtcacgcag ggttcagagc aagaagtctt gctttataca aatgtatcca   1260
taaaatatca gagcttgttg ggcatgaaca tcaaactttt gttccactaa tatggctctg   1320
tttggaaaaa actgcaaatc agaaagaatg atttgcagaa agaaagaaaa actatggtgt   1380
aatttaaact ctgggcagcc tctgaatgaa atgctacttt ctttagaaat ataatagctg   1440
ccttagacat tatgaggtat acaactagta tttaagatac catttaatat gccccgtaaa   1500
tgtcttcagt gttcttcagg gtagttggga tctcaaaaga tttggttcag atccaaacaa   1560
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atacacattc tgtgttttag ctcagtgttt tctaaaaaaa gaaactgcca cacagcaaaa   1620
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aagttataaa tatcgagtag ctctaaaaca aaccacctga ccaagaggga agtgagcttg   1740
tgcttagtat ttacattgga tgccagtttt gtaatcactg acttatgtgc aaactggtgc   1800
agaaattcta taaactcttt gctgtttttg atacctgctt tttgtttcat tttgttttgt   1860
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gaa gat gaa gaa gat gat gtg tca gag ggc tct gaa gtg ccc gag agt       96
Glu Asp Glu Glu Asp Asp Val Ser Glu Gly Ser Glu Val Pro Glu Ser
            20                  25                  30

gac cgt cct gca ggt gcc cag cac cac cag ctt aac ggc gag cgg gga      144
Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg Gly
        35                  40                  45

cct cag agt gcc aag gag agg gtc aag gag tgg acc ccc tgc gga ccg      192
Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly Pro
    50                  55                  60

cac cag ggc cag gat gaa ggg cgg ggg cca gcc ccg ggc agc ggc acc      240
His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly Thr
65                  70                  75                  80

cgc cag gtg ttc tcc atg gca gcc atg aac aag gaa ggg gga aca gct      288
Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr Ala
                85                  90                  95

tct gtt gcc acc ggg cca gac tcc ccg tcc ccc gtg cct ttg ccc cca      336
Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro
            100                 105                 110

ggc aaa cca gcc cta cct ggg gcc gac ggg acc ccc ttt ggc tgt cct      384
Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro
        115                 120                 125

ccc ggg cgc aaa gag aag cca tct gat ccc gtc gag tgg acc gtg atg      432
Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val Met
    130                 135                 140

gat gtc gtc gaa tat ttt act gag gct gga ttc ccg gag cag gcg aca      480
Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr
145                 150                 155                 160
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gct ttc caa gag cag gaa att gat ggc aaa tct ttg ctg ctc atg cag      528
Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln
                165                 170                 175

cgc aca gat gtg ctc acc ggc ctg tcc atc cgc ctc ggg cca gcc ctg      576
Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu
            180                 185                 190

aaa atc tac gag cac cac atc aag gtg ctt cag caa ggc cac ttt gag      624
Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu
        195                 200                 205

gat gat gac ccc gat ggc ttc tta ggc tgagcgccca gcctcacccc            671
Asp Asp Asp Pro Asp Gly Phe Leu Gly
    210                 215

tgccccagcc cattccggcc cccatctcac ccaagatccc ccagagtcca ggagctggac    731
ggggacaccc tcagccctca taacagattc caaggagagg gcaccctctt gtccttatct    791
ttgccccttg tgtctgtctc acacacatct gctcctcagc acgtcggtgt ggggagggga    851
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cctaccaccc atgccccccc tctcagtctg cccctggcct ccagccccta ggggactagc   1091
tgggttgggg ttcctcgggc cttttctctc ctcccctttt tctttctgtt gattgtcgct   1151
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<213> Homo sapiens

<220>
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   Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Pro Glu Gly Ala Gln
    1               5                  10                  15

gag cgg ccc agc cag gcg gct cct gca gta gaa gca gaa ggt ccc ggc       95
Glu Arg Pro Ser Gln Ala Ala Pro Ala Val Glu Ala Glu Gly Pro Gly
                20                  25                  30

agc agc cag gct cct cgg aag ccg gag ggg gct caa gcc aga acg gct      143
Ser Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala
            35                  40                  45

cag tct ggg gcc ctt cgt gat gtc tct gag gag ctg agc cgc caa ctg      191
Gln Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu
        50                  55                  60

gaa gac ata ctg agc aca tac tgt gtg gac aat aac cag ggg ggc ccc      239
Glu Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro
    65                  70                  75
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ggc gag gat ggg gca cag ggt gag ccg gct gaa ccc gaa gat gca gag      287
Gly Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu
 80                  85                  90                  95

aag tcc cgg acc tat gtg gca agg aat ggg gag cct gaa cca act cca      335
Lys Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro
                100                 105                 110

gta gtc tat gga gag aag gaa ccc tcc aag ggg gat cca aac aca gaa      383
Val Val Tyr Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu
            115                 120                 125

gag atc cgg cag agt gac gag gtc gga gac cga gac cat cga agg cca      431
Glu Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro
        130                 135                 140

cag gag aag aaa aaa gcc aag ggt ttg ggg aag gag atc acg ttg ctg      479
Gln Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu
    145                 150                 155

atg cag aca ttg aat act ctg agt acc cca gag gag aag ctg gct gct      527
Met Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala
160                 165                 170                 175

ctg tgc aag aag tat gct gaa ctg ctg gag gag cac cgg aat tca cag      575
Leu Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln
                180                 185                 190

aag cag atg aag ctc cta cag aaa aag cag agc cag ctg gtg caa gag      623
Lys Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu
            195                 200                 205

aag gac cac ctg cgc ggt gag cac agc aag gcc gtc ctg gcc cgc agc      671
Lys Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser
        210                 215                 220

aag ctt gag agc cta tgc cgt gag ctg cag cgg cac aac cgc tcc ctc      719
Lys Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu
    225                 230                 235

aag gaa gaa ggt gtg cag cgg gcc cgg gag gag gag gag aag cgc aag      767
Lys Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys
240                 245                 250                 255

gag gtg acc tcg cac ttc cag gtg aca ctg aat gac att cag ctg cag      815
Glu Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile Gln Leu Gln
                260                 265                 270

atg gaa cag cac aat gag cgc aac tcc aag ctg cgc caa gag aac atg      863
Met Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met
            275                 280                 285

gag ctg gct gag agg ctc aag aag ctg att gag cag tat gag ctg cgc      911
Glu Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg
        290                 295                 300

gag gag cat atc gac aaa gtc ttc aaa cac aag gac cta caa cag cag      959
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Glu Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln
    305                 310                 315

ctg gtg gat gcc aag ctc cag cag gcc cag gag atg cta aag gag gca     1007
Leu Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala
320                 325                 330                 335

gaa gag cgg cac cag cgg gag aag gat ttt ctc ctg aaa gag gca gta     1055
Glu Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val
                340                 345                 350

gag tcc cag agg atg tgt gag ctg atg aag cag caa gag acc cac ctg     1103
Glu Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu
            355                 360                 365

aag caa cag ctt gcc cta tac aca gag aag ttt gag gag ttc cag aac     1151
Lys Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn
        370                 375                 380

aca ctt tcc aaa agc agc gag gta ttc acc aca ttc aag cag gag atg     1199
Thr Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met
    385                 390                 395

gaa aag atg act aag aag atc aag aag ctg gag aaa gaa acc acc atg     1247
Glu Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met
400                 405                 410                 415

tac cgg tcc cgg tgg gag agc agc aac aag gcc ctg ctt gag atg gct     1295
Tyr Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala
                420                 425                 430

gag gag aaa aca gtc cgg gat aaa gaa ctg gag ggc ctg cag gta aaa     1343
Glu Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys
            435                 440                 445

atc caa cgg ctg gag aag ctg tgc cgg gca ctg cag aca gag cgc aat     1391
Ile Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn
        450                 455                 460

gac ctg aac aag agg gta cag gac ctg agt gct ggt ggc cag ggc tcc     1439
Asp Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser
    465                 470                 475

ctc act gac agt ggc cct gag agg agg cca gag ggg cct ggg gct caa     1487
Leu Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln
480                 485                 490                 495

gca ccc agc tcc ccc agg gtc aca gaa gcg cct tgc tac cca gga gca     1535
Ala Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr Pro Gly Ala
                500                 505                 510

ccg agc aca gaa gca tca ggc cag act ggg cct caa gag ccc acc tcc     1583
Pro Ser Thr Glu Ala Ser Gly Gln Thr Gly Pro Gln Glu Pro Thr Ser
            515                 520                 525

gcc agg gcc tagagagcct ggtgttgggt catgctggga agggagcggc             1632
Ala Arg Ala
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530

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Val Asp Val Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp
1 5 10 15

ggc ggc gac ggc 60
Gly Gly Asp Gly
20

<210> 19
<211> 15
<212> PRT
<213> Homo sapiens

<400> 19
Glu Glu Glu Glu Asp Asp Asp Glu Asp Glu Asp Glu Glu Asp Asp
1 5 10 15

<210> 20
<211> 26
<212> PRT
<213> Homo sapiens

<400> 20
Glu Glu Glu Glu Asp Asp Asp Glu Asp Glu Asp Glu Glu Asp Asp Val
1 5 10 15
Ser Glu Gly Ser Glu Val Pro Glu Ser Asp
20 25

<210> 21
<211> 11
<212> PRT
<213> Homo sapiens

<400> 21
Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp
1 5 10

<210> 22
<211> 10
<212> PRT
<213> Homo sapiens

<400> 22
Glu Asp Asp Asp Pro Asp Gly Phe Leu Gly
1 5 10

<210> 23
<211> 30

<212> PRT
<213> Oryctolagus cuniculus

<400> 23
Val Asp Val Asp Glu Tyr Asp Glu Asn Lys Phe Val Asp Glu Glu Asp
 1   5   10   15
Gly Gly Asp Gly Gln Ala Gly Pro Asp Glu Gly Glu Val Asp
            20   25   30

<210> 24
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<212> PRT
<213> Oryctolagus cuniculus

<400> 24
Asp Glu Gly Glu Val Asp
 1   5

<210> 25
<211> 16
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 1   5   10   15

<210> 26
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<212> PRT
<213> Oryctolagus cuniculus

<400> 26
Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp Asp Asp Asp
 1   5   10   15
Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp
            20   25

<210> 27
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<213> Oryctolagus cuniculus

<400> 27
Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp
 1   5   10

<210> 28
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<400> 28
Pro Pro Gly Lys Pro Ala Leu Pro Gly Ala
 1   5   10

<210> 29

<211> 15
<212> PRT
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<400> 29
Glu Asp Gly Val Gln Gly Glu Pro Pro Glu Pro Glu Asp Ala Glu
1 5 10 15

<210> 30
<211> 45
<212> DNA
<213> Homo sapiens

<400> 30
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<210> 31
<211> 78
<212> DNA
<213> Homo sapiens

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gaagtgcccg agagtgac 78

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<212> DNA
<213> Homo sapiens

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caggccgggc ccgacgaggg cgaggtggac 90

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<210> 36
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ggctcggagg tgcccgagag cgat 84

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1 5

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Thr Thr Ala Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His Tyr Gln
            20                  25                  30
Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys Ala Arg
        35                  40                  45
Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His Gly Pro
    50                  55                  60
Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln Gln Arg
65                  70                  75                  80
Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg Asn Ala
                85                  90                  95
Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala Pro Pro
            100                 105                 110
Arg Ala Pro Arg Gly Ala Pro Ala Ala Ala Ala Ala Ala Ala Pro Pro
        115                 120                 125
Pro Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala
    130                 135                 140
Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Thr Ala Pro Pro
145                 150                 155                 160
Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg Ala Ala Pro
                165                 170                 175
Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala Val Ala Pro
            180                 185                 190
Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Val Ala Ala Arg Glu
        195                 200                 205
Pro Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala Pro Pro Gln Gln Gln
    210                 215                 220
Gln Pro Pro Pro Pro Gln Pro Gln Pro Pro Pro Glu Gly Gly Ala Val
225                 230                 235                 240
Arg Ala Gly Gly Ala Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
                245                 250                 255
Tyr Leu Gly Gly Ser Gly Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
            260                 265                 270
Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
        275                 280                 285
Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
    290                 295                 300
Arg Ala Pro Pro Ala Ala Ser Ala Arg Pro Ser Arg Ser Lys Arg Gly
305                 310                 315                 320
Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Asp Asp Asp Glu
                325                 330                 335
Asp Glu Asp Glu Glu Asp Asp Val Ser Glu Gly Ser Glu Val Pro Glu
            340                 345                 350
Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg
        355                 360                 365
Gly Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly
    370                 375                 380
Pro His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly
```

385 390 395 400
Thr Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr
405 410 415
Ala Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro
420 425 430
Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys
435 440 445
Pro Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val
450 455 460
Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala
465 470 475 480
Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met
485 490 495
Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala
500 505 510
Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe
515 520 525
Glu Asp Asp Asp Pro Asp Gly Phe Leu Gly
530 535

<210> 44
<211> 546
<212> PRT
<213> Homo sapiens

<400> 44
Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Ser Asn Pro
1 5 10 15
Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Pro Glu Gly Ala Gln Glu
20 25 30
Arg Pro Ser Gln Ala Ala Pro Ala Val Glu Ala Glu Gly Pro Gly Ser
35 40 45
Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
50 55 60
Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
65 70 75 80
Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly
85 90 95
Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys
100 105 110
Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val
115 120 125
Val Asn Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu Glu
130 135 140
Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
145 150 155 160
Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
165 170 175
Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu
180 185 190
Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
195 200 205
Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
210 215 220
Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser Lys
225 230 235 240
Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys

```
                245                 250                 255
Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Lys Arg Lys Glu
            260                 265                 270
Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile Gln Leu Gln Met
        275                 280                 285
Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
    290                 295                 300
Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
305                 310                 315                 320
Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
                325                 330                 335
Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
            340                 345                 350
Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
        355                 360                 365
Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
    370                 375                 380
Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
385                 390                 395                 400
Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
                405                 410                 415
Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
            420                 425                 430
Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
        435                 440                 445
Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
    450                 455                 460
Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
465                 470                 475                 480
Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser Leu
                485                 490                 495
Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln Ala
            500                 505                 510
Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr Pro Gly Ala Pro
        515                 520                 525
Ser Thr Glu Ala Ser Gly Gln Thr Gly Pro Gln Glu Pro Thr Ser Ala
    530                 535                 540
Arg Ala
545
```

<210> 45
<211> 1614
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(1614)

<400> 45

```
atg gcg ggg ccc ccg gcc cta ccc ccg ccg gag acg gcg gcg gcc gcc        48
Met Ala Gly Pro Pro Ala Leu Pro Pro Pro Glu Thr Ala Ala Ala Ala
 1               5                  10                  15

acc acg gcg gcc gcc gcc tcg tcg tcc gcc gct tcc ccg cac tac caa        96
Thr Thr Ala Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His Tyr Gln
             20                  25                  30
```

```
gag tgg atc ctg gac acc atc gac tcg ctg cgc tcg cgc aag gcg cgg      144
Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys Ala Arg
         35                  40                  45

ccg gac ctg gag cgc atc tgc cgg atg gtg cgg cgg cgg cac ggc ccg      192
Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His Gly Pro
     50                  55                  60

gag ccg gag cgc acg cgc gcc gag ctc gag aaa ctg atc cag cag cgc      240
Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln Gln Arg
 65                  70                  75                  80

gcc gtg ctc cgg gtc agc tac aag ggg agc atc tcg tac cgc aac gcg      288
Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg Asn Ala
                 85                  90                  95

gcg cgc gtc cag ccg ccc cgg cgc gga gcc acc ccg ccg gcc ccg ccg      336
Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala Pro Pro
            100                 105                 110

cgc gcc ccc cgc ggg gcc ccc gcc gcc gcc gcc gcc gcc gcg ccg ccg      384
Arg Ala Pro Arg Gly Ala Pro Ala Ala Ala Ala Ala Ala Ala Pro Pro
        115                 120                 125

ccc acg ccc gcc ccg ccg cca ccg ccc gcg ccc gtc gcc gcc gcc gcc      432
Pro Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala
    130                 135                 140

ccg gcc cgg gcg ccc cgc gcg gcc gcc gcc gcc gcc aca gcg ccc ccc      480
Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Thr Ala Pro Pro
145                 150                 155                 160

tcg cct ggc ccc gcg cag ccg ggc ccc cgc gcg cag cgg gcc gcg ccc      528
Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg Ala Ala Pro
                165                 170                 175

ctg gcc gcg ccg ccg ccc gcg cca gcc gct ccc ccg gcg gtg gcg ccc      576
Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala Val Ala Pro
            180                 185                 190

ccg gcc ggc ccg cgc cgc gcc ccc ccg ccc gcc gtc gcc gcc cgg gag      624
Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Val Ala Ala Arg Glu
        195                 200                 205

ccg ccg ctg ccg ccg ccg cca cag ccg ccg gcg ccg cca cag cag cag      672
Pro Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala Pro Pro Gln Gln Gln
    210                 215                 220

cag ccg ccg ccg ccg cag cca cag ccg ccg ccg gag ggg ggc gcg gtg      720
Gln Pro Pro Pro Pro Gln Pro Gln Pro Pro Pro Glu Gly Gly Ala Val
225                 230                 235                 240

cgg gcc ggc ggc gcg gcg cgg ccc gtg agc ctg cgg gaa gtc gtg cgc      768
Arg Ala Gly Gly Ala Ala Arg Pro Val Ser Leu Arg Glu Val Val Arg
                245                 250                 255
```

```
tac ctc ggg ggc agc ggc ggc gcc ggc ggt cgc cta acc cgc ggc cgc      816
Tyr Leu Gly Gly Ser Gly Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg
            260                 265                 270

gtg cag ggg ctg ctg gag gag gag gcg gcg gct cga ggc cgt ctg gag      864
Val Gln Gly Leu Leu Glu Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu
        275                 280                 285

cgc acc cgt ctc gga gcg ctt gcg ctg ccc cgc ggg gac agg ccc gga      912
Arg Thr Arg Leu Gly Ala Leu Ala Leu Pro Arg Gly Asp Arg Pro Gly
    290                 295                 300

cgg gcg ccg ccg gcc gcc agc gcc cgc ccg tct cgc agc aag aga ggt      960
Arg Ala Pro Pro Ala Ala Ser Ala Arg Pro Ser Arg Ser Lys Arg Gly
305                 310                 315                 320

gga gaa gag cga gta ctt gag aaa gaa gag gaa gaa gat gat gat gaa     1008
Gly Glu Glu Arg Val Leu Glu Lys Glu Glu Glu Glu Asp Asp Asp Glu
                325                 330                 335

gat gaa gat gaa gaa gat gat gtg tca gag ggc tct gaa gtg ccc gag     1056
Asp Glu Asp Glu Glu Asp Asp Val Ser Glu Gly Ser Glu Val Pro Glu
            340                 345                 350

agt gac cgt cct gca ggt gcc cag cac cac cag ctt aac ggc gag cgg     1104
Ser Asp Arg Pro Ala Gly Ala Gln His His Gln Leu Asn Gly Glu Arg
        355                 360                 365

gga cct cag agt gcc aag gag agg gtc aag gag tgg acc ccc tgc gga     1152
Gly Pro Gln Ser Ala Lys Glu Arg Val Lys Glu Trp Thr Pro Cys Gly
    370                 375                 380

ccg cac cag ggc cag gat gaa ggg cgg ggg cca gcc ccg ggc agc ggc     1200
Pro His Gln Gly Gln Asp Glu Gly Arg Gly Pro Ala Pro Gly Ser Gly
385                 390                 395                 400

acc cgc cag gtg ttc tcc atg gca gcc atg aac aag gaa ggg gga aca     1248
Thr Arg Gln Val Phe Ser Met Ala Ala Met Asn Lys Glu Gly Gly Thr
                405                 410                 415

gct tct gtt gcc acc ggg cca gac tcc ccg tcc ccc gtg cct ttg ccc     1296
Ala Ser Val Ala Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro
            420                 425                 430

cca ggc aaa cca gcc cta cct ggg gcc gac ggg acc ccc ttt ggc tgt     1344
Pro Gly Lys Pro Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys
        435                 440                 445

ccg ccc ggg cgc aaa gag aag cca tct gat ccc gtc gag tgg acc gtg     1392
Pro Pro Gly Arg Lys Glu Lys Pro Ser Asp Pro Val Glu Trp Thr Val
    450                 455                 460

atg gat gtc gtc gaa tat ttt act gag gct gga ttc ccg gag cag gcg     1440
Met Asp Val Val Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala
465                 470                 475                 480

aca gct ttc caa gag cag gaa att gat ggc aaa tct ttg ctg ctc atg     1488
```

```
Thr Ala Phe Gln Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met
                485                 490                 495

cag cgc aca gat gtg ctc acc ggc ctg tcc atc cgc ctc ggg cca gcc     1536
Gln Arg Thr Asp Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala
            500                 505                 510

ctg aaa atc tac gag cac cac atc aag gtg ctt cag caa ggc cac ttt     1584
Leu Lys Ile Tyr Glu His His Ile Lys Val Leu Gln Gln Gly His Phe
        515                 520                 525

gag gat gat gac ccc gat ggc ttc tta ggc                             1614
Glu Asp Asp Asp Pro Asp Gly Phe Leu Gly
    530                 535
```

<210> 46
<211> 1638
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)...(1638)

<400> 46

```
atg aag aac caa gac aaa aag aac ggg gct gcc aaa caa tcc aat cca       48
Met Lys Asn Gln Asp Lys Lys Asn Gly Ala Ala Lys Gln Ser Asn Pro
 1               5                  10                  15

aaa agc agc cca gga caa ccg gaa gca gga ccc gag gga gcc cag gag       96
Lys Ser Ser Pro Gly Gln Pro Glu Ala Gly Pro Glu Gly Ala Gln Glu
            20                  25                  30

cgg ccc agc cag gcg gct cct gca gta gaa gca gaa ggt ccc ggc agc      144
Arg Pro Ser Gln Ala Ala Pro Ala Val Glu Ala Glu Gly Pro Gly Ser
        35                  40                  45

agc cag gct cct cgg aag ccg gag ggt gct caa gcc aga acg gct cag      192
Ser Gln Ala Pro Arg Lys Pro Glu Gly Ala Gln Ala Arg Thr Ala Gln
    50                  55                  60

tct ggg gcc ctt cgt gat gtc tct gag gag ctg agc cgc caa ctg gaa      240
Ser Gly Ala Leu Arg Asp Val Ser Glu Glu Leu Ser Arg Gln Leu Glu
65                  70                  75                  80

gac ata ctg agc aca tac tgt gtg gac aat aac cag ggg ggc ccc ggc      288
Asp Ile Leu Ser Thr Tyr Cys Val Asp Asn Asn Gln Gly Gly Pro Gly
                85                  90                  95

gag gat ggg gca cag ggt gag ccg gct gaa ccc gaa gat gca gag aag      336
Glu Asp Gly Ala Gln Gly Glu Pro Ala Glu Pro Glu Asp Ala Glu Lys
            100                 105                 110

tcc cgg acc tat gtg gca agg aat ggg gag cct gaa cca act cca gta      384
Ser Arg Thr Tyr Val Ala Arg Asn Gly Glu Pro Glu Pro Thr Pro Val
        115                 120                 125
```

```
gtc aat gga gag aag gaa ccc tcc aag ggg gat cca aac aca gaa gag      432
Val Asn Gly Glu Lys Glu Pro Ser Lys Gly Asp Pro Asn Thr Glu Glu
    130                 135                 140

atc cgg cag agt gac gag gtc gga gac cga gac cat cga agg cca cag      480
Ile Arg Gln Ser Asp Glu Val Gly Asp Arg Asp His Arg Arg Pro Gln
145                 150                 155                 160

gag aag aaa aaa gcc aag ggt ttg ggt aag gag atc acg ttg ctg atg      528
Glu Lys Lys Lys Ala Lys Gly Leu Gly Lys Glu Ile Thr Leu Leu Met
                165                 170                 175

cag aca ttg aat act ctg agt acc cca gag gag aag ctg gct gct ctg      576
Gln Thr Leu Asn Thr Leu Ser Thr Pro Glu Glu Lys Leu Ala Ala Leu
            180                 185                 190

tgc aag aag tat gct gaa ctg ctg gag gag cac cgg aat tca cag aag      624
Cys Lys Lys Tyr Ala Glu Leu Leu Glu Glu His Arg Asn Ser Gln Lys
        195                 200                 205

cag atg aag ctc cta cag aaa aag cag agc cag ctg gtg caa gag aag      672
Gln Met Lys Leu Leu Gln Lys Lys Gln Ser Gln Leu Val Gln Glu Lys
    210                 215                 220

gac cac ctg cgc ggt gag cac agc aag gcc gtc ctg gcc cgc agc aag      720
Asp His Leu Arg Gly Glu His Ser Lys Ala Val Leu Ala Arg Ser Lys
225                 230                 235                 240

ctt gag agc cta tgc cgt gag ctg cag cgg cac aac cgc tcc ctc aag      768
Leu Glu Ser Leu Cys Arg Glu Leu Gln Arg His Asn Arg Ser Leu Lys
                245                 250                 255

gaa gaa ggt gtg cag cgg gcc cgg gag gag gag gag aag cgc aag gag      816
Glu Glu Gly Val Gln Arg Ala Arg Glu Glu Glu Glu Lys Arg Lys Glu
            260                 265                 270

gtg acc tcg cac ttc cag gtg aca ctg aat gac att cag ctg cag atg      864
Val Thr Ser His Phe Gln Val Thr Leu Asn Asp Ile Gln Leu Gln Met
        275                 280                 285

gaa cag cac aat gag cgc aac tcc aag ctg cgc caa gag aac atg gag      912
Glu Gln His Asn Glu Arg Asn Ser Lys Leu Arg Gln Glu Asn Met Glu
    290                 295                 300

ctg gct gag agg ctc aag aag ctg att gag cag tat gag ctg cgc gag      960
Leu Ala Glu Arg Leu Lys Lys Leu Ile Glu Gln Tyr Glu Leu Arg Glu
305                 310                 315                 320

gag cat atc gac aaa gtc ttc aaa cac aag gac cta caa cag cag ctg     1008
Glu His Ile Asp Lys Val Phe Lys His Lys Asp Leu Gln Gln Gln Leu
                325                 330                 335

gtg gat gcc aag ctc cag cag gcc cag gag atg cta aag gag gca gaa     1056
Val Asp Ala Lys Leu Gln Gln Ala Gln Glu Met Leu Lys Glu Ala Glu
            340                 345                 350
```

```
gag cgg cac cag cgg gag aag gat ttt ctc ctg aaa gag gca gta gag     1104
Glu Arg His Gln Arg Glu Lys Asp Phe Leu Leu Lys Glu Ala Val Glu
        355                 360                 365

tcc cag agg atg tgt gag ctg atg aag cag caa gag acc cac ctg aag     1152
Ser Gln Arg Met Cys Glu Leu Met Lys Gln Gln Glu Thr His Leu Lys
    370                 375                 380

caa cag ctt gcc cta tac aca gag aag ttt gag gag ttc cag aac aca     1200
Gln Gln Leu Ala Leu Tyr Thr Glu Lys Phe Glu Glu Phe Gln Asn Thr
385                 390                 395                 400

ctt tcc aaa agc agc gag gta ttc acc aca ttc aag cag gag atg gaa     1248
Leu Ser Lys Ser Ser Glu Val Phe Thr Thr Phe Lys Gln Glu Met Glu
                405                 410                 415

aag atg act aag aag atc aag aag ctg gag aaa gaa acc acc atg tac     1296
Lys Met Thr Lys Lys Ile Lys Lys Leu Glu Lys Glu Thr Thr Met Tyr
            420                 425                 430

cgg tcc cgg tgg gag agc agc aac aag gcc ctg ctt gag atg gct gag     1344
Arg Ser Arg Trp Glu Ser Ser Asn Lys Ala Leu Leu Glu Met Ala Glu
        435                 440                 445

gag aaa aca gtc cgg gat aaa gaa ctg gag ggc ctg cag gta aaa atc     1392
Glu Lys Thr Val Arg Asp Lys Glu Leu Glu Gly Leu Gln Val Lys Ile
    450                 455                 460

caa cgg ctg gag aag ctg tgc cgg gca ctg cag aca gag cgc aat gac     1440
Gln Arg Leu Glu Lys Leu Cys Arg Ala Leu Gln Thr Glu Arg Asn Asp
465                 470                 475                 480

ctg aac aag agg gta cag gac ctg agt gct ggt ggc cag ggc tcc ctc     1488
Leu Asn Lys Arg Val Gln Asp Leu Ser Ala Gly Gly Gln Gly Ser Leu
                485                 490                 495

act gac agt ggc cct gag agg agg cca gag ggg cct ggg gct caa gca     1536
Thr Asp Ser Gly Pro Glu Arg Arg Pro Glu Gly Pro Gly Ala Gln Ala
            500                 505                 510

ccc agc tcc ccc agg gtc aca gaa gcg cct tgc tac cca gga gca ccg     1584
Pro Ser Ser Pro Arg Val Thr Glu Ala Pro Cys Tyr Pro Gly Ala Pro
        515                 520                 525

agc aca gaa gca tca ggc cag act ggg cct caa gag ccc acc tcc gcc     1632
Ser Thr Glu Ala Ser Gly Gln Thr Gly Pro Gln Glu Pro Thr Ser Ala
    530                 535                 540

agg gcc                                                            1638
Arg Ala
545
```

<210> 47
<211> 550
<212> PRT
<213> Oryctolagus cuniculus

<400> 47

```
Met Ala Gly Pro Pro Ala Leu Pro Pro Pro Glu Thr Ala Ala Ala Ala
 1               5                  10                  15
Thr Thr Ala Ala Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His Tyr
            20                  25                  30
Gln Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys Ala
        35                  40                  45
Arg Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His Gly
    50                  55                  60
Pro Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln Gln
65                  70                  75                  80
Arg Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg Asn
                85                  90                  95
Ala Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala Pro
            100                 105                 110
Pro Arg Ala Pro Arg Gly Gly Pro Ala Ala Ala Ala Ala Pro Pro Pro
        115                 120                 125
Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala Ala
    130                 135                 140
Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Ala Ala Thr Ala
145                 150                 155                 160
Pro Pro Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg Ala
                165                 170                 175
Ala Pro Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala Ala
            180                 185                 190
Ala Pro Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Ala Ala Val
        195                 200                 205
Ala Ala Arg Glu Ser Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala Pro
    210                 215                 220
Pro Gln Gln Gln Gln Gln Pro Pro Pro Pro Pro Pro Pro Gln Gln Pro
225                 230                 235                 240
Gln Pro Pro Pro Glu Gly Gly Ala Ala Arg Ala Gly Gly Pro Ala Arg
                245                 250                 255
Pro Val Ser Leu Arg Glu Val Val Arg Tyr Leu Gly Gly Ser Ser Gly
            260                 265                 270
Ala Gly Gly Arg Leu Thr Arg Gly Arg Val Gln Gly Leu Leu Glu Glu
        275                 280                 285
Glu Ala Ala Ala Arg Gly Arg Leu Glu Arg Thr Arg Leu Gly Ala Leu
    290                 295                 300
Ala Leu Pro Arg Gly Asp Arg Pro Gly Arg Ala Pro Pro Ala Ala Ser
305                 310                 315                 320
Ala Arg Ala Ala Arg Asn Lys Arg Ala Gly Glu Glu Arg Val Leu Glu
                325                 330                 335
Lys Glu Glu Glu Glu Glu Glu Glu Glu Asp Asp Glu Asp Asp Asp Asp
            340                 345                 350
Asp Val Val Ser Glu Gly Ser Glu Val Pro Glu Ser Asp Arg Pro Ala
        355                 360                 365
Gly Ala Gln His His Gln Leu Asn Gly Gly Glu Arg Gly Pro Gln Thr
    370                 375                 380
Ala Lys Glu Arg Ala Lys Glu Trp Ser Leu Cys Gly Pro His Pro Gly
385                 390                 395                 400
Gln Glu Glu Gly Arg Gly Pro Ala Ala Gly Ser Gly Thr Arg Gln Val
                405                 410                 415
Phe Ser Met Ala Ala Leu Ser Lys Glu Gly Gly Ser Ala Ser Ser Thr
            420                 425                 430
Thr Gly Pro Asp Ser Pro Ser Pro Val Pro Leu Pro Pro Gly Lys Pro
```

```
        435                 440                 445
Ala Leu Pro Gly Ala Asp Gly Thr Pro Phe Gly Cys Pro Ala Gly Arg
    450                 455                 460
Lys Glu Lys Pro Ala Asp Pro Val Glu Trp Thr Val Met Asp Val Val
465                 470                 475                 480
Glu Tyr Phe Thr Glu Ala Gly Phe Pro Glu Gln Ala Thr Ala Phe Gln
                485                 490                 495
Glu Gln Glu Ile Asp Gly Lys Ser Leu Leu Leu Met Gln Arg Thr Asp
            500                 505                 510
Val Leu Thr Gly Leu Ser Ile Arg Leu Gly Pro Ala Leu Lys Ile Tyr
        515                 520                 525
Glu His His Ile Lys Val Leu Gln Gln Gly His Phe Glu Asp Asp Asp
    530                 535                 540
Pro Glu Gly Phe Leu Gly
545                 550
```

<210> 48
<211> 2561
<212> DNA
<213> Oryctolagus cuniculus

<220>
<221> CDS
<222> (246)...(1895)

<400> 48

```
ggtctgtgtg tgcgtgcgtg cgagtgagtg agtgtgtgca tatttttttt tctcttttct     60
ttctctctct ttttttttttt tttgcaaaga aacagcagcg ccgccgccgc tccgccgagg    120
cgctgcgccc cccgggggggg ggaggcggag gaggcgggca gcggcggagg gaggggagcc    180
ggggaggggg gcgccgcgct gggagggagg cagcgcgcac ggtgcagccg ggccgggcgg    240
gaggc atg gcg ggg ccc ccg gcc cta ccc ccg ccg gag acg gcg gcg gcc     290
      Met Ala Gly Pro Pro Ala Leu Pro Pro Pro Glu Thr Ala Ala Ala
       1               5                  10                  15

gcc acc acg gcc gcg gcc gcc gcc tcg tcg tcc gcc gct tcc ccg cac      338
Ala Thr Thr Ala Ala Ala Ala Ala Ser Ser Ser Ala Ala Ser Pro His
                  20                  25                  30

tac caa gag tgg att ctg gac acc atc gac tcg ctg cgc tcg cgc aag      386
Tyr Gln Glu Trp Ile Leu Asp Thr Ile Asp Ser Leu Arg Ser Arg Lys
              35                  40                  45

gcg cgg ccg gac ctg gag cgc atc tgc cgg atg gtg cgg cgg cgg cac      434
Ala Arg Pro Asp Leu Glu Arg Ile Cys Arg Met Val Arg Arg Arg His
          50                  55                  60

ggc ccg gag ccg gag cgc acg cgc gcc gag ctc gag aaa ctg atc cag      482
Gly Pro Glu Pro Glu Arg Thr Arg Ala Glu Leu Glu Lys Leu Ile Gln
      65                  70                  75

cag cgc gcc gtg ctc cgg gtc agc tac aag ggg agc atc tcg tac cgc      530
Gln Arg Ala Val Leu Arg Val Ser Tyr Lys Gly Ser Ile Ser Tyr Arg
 80                  85                  90                  95

aac gcg gcg cgc gtc cag ccg ccc cgg cgc gga gcc acc ccg ccg gcc      578
Asn Ala Ala Arg Val Gln Pro Pro Arg Arg Gly Ala Thr Pro Pro Ala
                 100                 105                 110
```

```
ccg ccg cgc gcc ccc cgc ggg ggc ccc gcc gcc gcc gcc gcg ccg ccg      626
Pro Pro Arg Ala Pro Arg Gly Gly Pro Ala Ala Ala Ala Ala Pro Pro
            115                 120                 125

ccc acg ccc gcc ccg ccg ccg ccg ccc gcg ccc gtc gcc gcc gcc gcc      674
Pro Thr Pro Ala Pro Pro Pro Pro Pro Ala Pro Val Ala Ala Ala Ala
        130                 135                 140

gcc ccg gcc cgg gcg ccc cgc gcg gcc gcc gcc gcc gct gcc gcc aca      722
Ala Pro Ala Arg Ala Pro Arg Ala Ala Ala Ala Ala Ala Ala Ala Thr
    145                 150                 155

gcg ccc ccc tcg ccc ggc ccc gcg cag ccg ggc ccc cgc gcg cag cgg      770
Ala Pro Pro Ser Pro Gly Pro Ala Gln Pro Gly Pro Arg Ala Gln Arg
160                 165                 170                 175

gcc gcg ccc ctg gcc gcg ccg ccg ccc gcg ccc gcc gct ccc ccg gcg      818
Ala Ala Pro Leu Ala Ala Pro Pro Pro Ala Pro Ala Ala Pro Pro Ala
                180                 185                 190

gcg gcg ccc ccg gcc ggc ccg cgc cgc gcc ccc ccg ccc gcc gcc gcc      866
Ala Ala Pro Pro Ala Gly Pro Arg Arg Ala Pro Pro Pro Ala Ala Ala
            195                 200                 205

gtc gcc gcc cgg gag tcg ccg ctg ccg ccg ccg cca cag ccg ccg gcg      914
Val Ala Ala Arg Glu Ser Pro Leu Pro Pro Pro Pro Gln Pro Pro Ala
        210                 215                 220

ccg cca cag cag cag cag cag ccg ccg ccg cca ccg ccg ccg cag cag      962
Pro Pro Gln Gln Gln Gln Gln Pro Pro Pro Pro Pro Pro Pro Gln Gln
    225                 230                 235

cca cag ccg ccg ccg gag ggg ggc gcg gcg cgg gcc ggc ggc ccg gcg     1010
Pro Gln Pro Pro Pro Glu Gly Gly Ala Ala Arg Ala Gly Gly Pro Ala
240                 245                 250                 255

cgg ccc gtg agc ctg cgg gaa gtc gtg cgc tac ctc ggg ggt agc agc     1058
Arg Pro Val Ser Leu Arg Glu Val Val Arg Tyr Leu Gly Gly Ser Ser
                260                 265                 270

ggc gct ggc ggc cgc ctg acc cgc ggc cgc gtg cag ggt ctg ctg gaa     1106
Gly Ala Gly Gly Arg Leu Thr Arg Gly Arg Val Gln Gly Leu Leu Glu
            275                 280                 285

gag gag gcg gcg gcg cgg ggc cgc ctg gag cgc acc cgt ctc gga gcg     1154
Glu Glu Ala Ala Ala Arg Gly Arg Leu Glu Arg Thr Arg Leu Gly Ala
        290                 295                 300

ctt gcg ctg ccc cgc ggg gac agg ccc gga cgg gcg cca ccg gcc gcc     1202
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